

## CLAIMS:

1. A method of authenticating a password that is presentable in a series of instances and has a first set of fields (201, 203) and has a second field (113, 114, 202, 311, 313, 314), wherein the first set of fields comprises at least one of (a) a static field (105, 201 or 302) that does not change upon each instance of the password and (b) a dynamic field  
5 (101, 102, 203, 305 or 306) that changes with each instance of the password based upon extrinsic data, and wherein the second field is arranged to contain historic data that is a function of a preceding instance of authentication, the method comprising:  
receiving a current presented instance of the password (110 or 310); and  
performing a comparison operation (605) in which the second field (113, 114,  
10 311, 313 or 314) of the current presented instance of the password is compared using data retained since a prior instance of authentication of the password.
2. A method according to claim 1, wherein the historic data is a function of a preceding password.  
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3. A method according to claim 1 or 2, wherein the historic data is a function of an event record of a preceding instance of authentication.
4. A method according to claim 1, 2 or 3, wherein the first set of fields comprises  
20 a static field (201) and a dynamic field (203).
5. A method according to claim 4, wherein, for the dynamic field, the step of performing a comparison operation comprises receiving extrinsic data in the form of date and/or time and/or place data and/or internet protocol address of a client machine.  
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6. A method according to any one of the preceding claims, further comprising, upon successful comparison, retaining data for purposes of comparison of a next instance of the password.

7. A method according to claim 6, wherein the data retained (602) comprises one of the date and the time of receipt of the instance of the current presented instance of the password.
- 5 8. A method according to claim 6, wherein the data retained (602) is derived from the place of receipt of the instance of the current presented instance of the password.
9. A method according to claim 6, wherein the data retained comprises at least a part of the current presented instance of the password.
- 10 10. A method according to any one of the preceding claims, wherein the step of comparing comprises:  
generating (604) at least the second field of a generated instance of the password; and  
15 comparing (605) the second field of the current presented instance of the password with the second field of the generated instance of the password.
11. A method according to claim 1, in which the password further has a third field containing pseudo-random data.
- 20 12. A method according to claim 11, in which the pseudo-random data is input by the user.
13. A method according to claim 11 or 12, in which the data retained is the contents of the third field.
- 25 14. A method according to claim 6 and 13, comprising retaining the contents of the third field.
- 30 15. Apparatus for receiving and authenticating a password that is presentable in a series of instances and has a first set of fields (201, 203) and has a second field (202), wherein the first set of fields comprises at least one of (a) a static field (201) that does not change upon each instance of the password and (b) a dynamic field (203) that changes with each instance of the password based upon extrinsic data, and wherein the second field (202)

is arranged to contain historic data that is a function of a preceding instance of authentication, the apparatus comprising:

input means (500) for inputting a current presented instance of the password;

and

- 5                    comparison means (501) for performing a comparison operation in which the second field of the current presented instance of the password is compared using data retained since a prior instance of authentication of the password.

16.                Apparatus according to claim 15, wherein the historic data is a function of a  
10 preceding password.

17.                A data carrier having stored thereon instructions and data which, when loaded into the memory (521) of a suitable computer (501), and when presented with a current presented instance of a password that is presentable in a series of instances and has a first set  
15 of fields (201, 203) and has a second field (202), wherein the first set of fields comprises at least one of (a) a static field (201) that does not change upon each instance of the password and (b) a dynamic field (203) that changes with each instance of the password based upon extrinsic data, and wherein the second field (202) is arranged to contain data that is a function of a preceding instance of authentication, cause the computer to:

- 20                   perform a comparison operation (605) in which the second field of the current presented instance of the password is compared using data retained since a prior instance of authentication of the password.